

Corporate Reputation And Earnings Quality

Christopher Luchs, Ball State University, USA
Marty Stuebs, Baylor University, USA
Li Sun, Ball State University, USA

ABSTRACT

Investor confidence and the quality of reported information are primary issues in our current financial reporting environment as a result of recent scandals and financial crises. Assessing the quality of reported financial information is an important issue for investors. Can investors use corporate reputation to assess earnings quality? This paper examines the association between corporate reputation and earnings quality. We use a public measure – “America’s Most Admired Companies” – as a proxy for corporate reputation. These firms are considered to possess superior reputation. A cross-sectional accruals-based measure proxies for earnings quality. We compare the firms listed on America’s Most Admired Companies of 2006 to a sample of control firms and find that sample firms have higher earnings quality than control firms. Our results should be of interest to managers who engage in behavior leading to or maintaining a positive corporate reputation, and to financial analysts who conduct research on the impact of corporate reputation on earnings quality. Moreover, our study can increase individual investors’ confidence in assessing the earnings quality of companies with a superior reputation.

Keywords: corporate reputation, earnings quality, America’s Most Admired Companies;

1. INTRODUCTION

This study examines the association between corporate reputation and the quality of a firm’s earnings. Earnings quality is an issue of increasing importance to investors especially after recent financial scandals and crises. Identifying signals of earnings quality would be useful to investors and others. To examine whether there is an association between firm reputation and earnings quality, we use a public measure – “America’s Most Admired Companies” – as a proxy for reputation. Fortune magazine has published annually a list of most-admired American companies since 1983. Firms on this list are selected by executives, directors, and securities analysts based on eight key areas. These areas are financial soundness, ability to attract and retain talented employees, quality of management, social responsibility, innovation, quality of products or service, wise use of assets, and investment value. Firms selected to this list are considered to possess a superior reputation.

An underlying assumption of the above selection criteria is that the companies’ accounting practices have integrity, otherwise many of these measures, like financial soundness, wise use of assets and investment value would become meaningless. As a result, we expect that firms on the “America’s Most Admired Companies” list have accounting practices with more integrity and higher earnings quality. Companies use discretion when applying accounting practices. With this discretion comes the possibility for both honest mistakes and dishonest mistakes, such as intentional manipulation of earnings. The intentional manipulation of earnings leads to lower earnings quality. To capture the earnings quality, we rely on the modified Jones (1991) model to calculate discretionary accruals. The absolute value of discretionary accruals is viewed as an inverse measure of earnings quality. That is, a higher absolute value of discretionary accruals suggests lower earnings quality.

Our regression analysis reports a significant and negative relationship between the absolute value of discretionary accruals and reputation. The results suggest that firms with superior reputation also have superior quality in their earnings. Our results should be of interest to managers who engage in behavior leading to or maintaining a positive corporate reputation, to financial analysts who conduct research on determining the earnings quality of a firm. Moreover, our study can increase individual investors’ confidence in assessing the earnings quality of companies with a superior reputation.

The remainder of the paper is organized as follows. Section 2 reviews prior research and develops the hypothesis. Section 3 describes the research design, including measurement of earnings quality, empirical specifications, sample selection and descriptive statistics. Section 4 reports the results of our regression analysis, and Section 5 summarizes the paper.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Reputation is defined by Fombrun (1996, p.72) as “a perceptual representation of a company’s past actions and future prospects that describe the firm’s overall appeal to all its key constituents when compared to other leading rivals.” Roberts and Dowling (2002) suggest that corporate reputation is a general organizational attribute that reflects the extent to which external stakeholders view the company as “good” and “bad”. How does a good reputation affect a company? Based on Fombrun (1996), strategic management theory suggests that good reputation may create competitive advantages for firms, and strategic researchers also view a good reputation as a unique asset to a firm.

Dowling (2001) suggests that the main drivers of reputation creation are embedded inside the firm. That is, characteristics of the company’s own performance drive reputation. A large body of empirical research (e.g. Dierickx and Cool, 1989; Fombrun and Shanley, 1990; Herremans et al., 1993; Landon and Smith, 1997) has examined the relation between a firm’s reputation and its performance. These empirical studies support a positive relationship between reputation and economic performance.

McLaughlin et al. (1996) find that most-admired firms tend to be highly profitable and to grow quickly. In addition, they find that firms on the most-admired list tend to acquire other firms. Similar to McLaughlin et al. (1996), Roberts and Dowling (2002) suggest that a firm with a good reputation may possess a cost advantage, since people prefer to work for firms with high reputations, and they work harder. Also, suppliers prefer to do business with high-reputation firms in order to reduce contractual hazards. Therefore, Roberts and Dowling (2002) suggest that firms with superior reputation are better able to maintain superior profitability over time.

From a capital market point of view, Antunovich and Laster (1999) investigate the stock returns of firms on the most-admired list from 1982 to 1995. They documented that the most-admired decile of firms significantly outperformed the least-admired decile. Moreover, their findings reveal that even five years after the publication of the most-admired list the most-admired decile earned an average annual return of 17.7 percent, while the least-admired decile only earned 12.5 percent. Damodaran (2003) suggests that investors should buy stocks of companies with a good reputation for products and management. The rationale was that a well-run company should be worth more than a poorly-run company. Anderson and Smith (2006) examine a portfolio of the stocks of firms on the most-admired list. They find that their portfolio of these stocks outperformed the market (proxied by S&P 500 Index), whether these stocks were purchased on the publication date, or 5, 10, 15 or even 20 trading days later. However, Anderson and Smith (2006) do not offer an explanation for their findings. Wang and Smith (2008) investigate the market values of firms with superior reputation. By using the Ohlson (1995) model, Wang and Smith (2008) report that firms with high reputation had an average market value premium of \$1.3 billion. They conclude that firms with superior reputation are highly-valued by the capital markets.

Chun (2005) reports that many academic disciplines have shown interest in reputation research. Accounting studies which examine the association between reputation and accounting variables have started to emerge. Francis et al. (2008) examine the association between CEO reputation and earnings quality. Using the extent of press coverage as proxy for CEO reputation, they find that more highly reputed CEOs are associated with poorer earnings quality. They conclude that firms with poor earnings quality required more highly reputed CEOs. By using a list of firms in China, Tan (2007) investigates the association between corporate reputation and earnings quality. Tan (2007) also uses a public measure – “World’s Most Respected Companies in China” – as a proxy for reputation. However, the results in Tan (2007) are inconclusive. Our study extends these studies in a number of ways. First, we focus on corporate reputation while Francis et al. (2008) focus on CEO reputation. Next, we use a more complete measure of earnings quality than Tan (2007). For example, it is unknown whether Tan (2007) estimates parameters of the cross-sectional model using all other firms in the same industry.

Based on the underlying assumption that firms on the “America’s Most Admired Companies” list have accounting practices with more integrity and, as a result, less earnings manipulation, we posit that firms with superior reputation also have superior earnings quality.

Ha: There is a positive association between firm reputation and earnings quality.

3. RESEARCH DESIGN, SAMPLE SELECTION AND DESCRIPTIVE STATISTICS

Measurement of the Primary Variable – Earnings Quality

Prior research generally uses one of the two approaches to measure earnings quality. The first approach captures earnings quality by examining accounting variables. For example, Sloan (1996) measures earning quality by examining the level of accruals, while Dechow and Dichev (2002) measure earnings quality by examining the estimation error in accruals. The second approach examines the relationship between earnings and stock returns assuming market efficiency (e.g., Basu, 1997; Collins et al., 1999; Francis and Schipper, 1999).

We use the first approach. Specifically, we measure earnings quality by investigating the level of discretionary accruals. We use the modified Jones (1991) model and a cross-sectional estimation method to capture discretionary accruals. The absolute value of discretionary accruals is viewed as an inverse measure of earnings quality. That is, a higher absolute value of discretionary accruals suggests lower earnings quality.

Total accruals (TA) are measured as follows:

$$TA_{i,t} = NI_{i,t} - CFFO_{i,t} \quad (1)$$

Where

$NI_{i,t}$ = firm i’s net income (Compustat #18) in year t,

$CFFO_{i,t}$ = firm i’s cash flow from operations (Compustat #308) in year t.

In order to estimate discretionary accruals for firm i in year t, we first estimate parameters of the cross-sectional modified Jones (1991) model using all other firms in the same industry (same first two-digit SIC as firm i). The model is as follows:

$$TA_{j,t}/A_{j,t-1} = \alpha_{j,t}(1/A_{j,t-1}) + \beta_{1j,t}[(\Delta REV_{j,t} - \Delta RECE_{j,t})/A_{j,t-1}] + \beta_{2j,t}[PPE_{j,t}/A_{j,t-1}] + \varepsilon_{j,t} \quad (2)$$

Where

$TA_{j,t}$ = industry j’s total accruals in year t,

$\Delta REV_{j,t}$ = industry j’s change in revenue (Compustat Item #12) between year (t-1) and year t,

$\Delta RECE_{j,t}$ = industry j’s change in receivables (Compustat Item #2) between year (t-1) and year t,

$PPE_{j,t}$ = industry j’s gross property, plant, and equipment (Compustat Item #7) at the end of year t,

$A_{j,t-1}$ = industry j’s the total assets (Comustat Item #6) at the end of year t-1.

The industry-specific estimates of parameters from Equation (2) imply an expected association between non-discretionary accruals and accounting variables for firms in industry j. Thus, the non-discretionary accruals for firm i in year t can be computed as follows:

$$NDA_{i,t} = \alpha_{j,t}(1/A_{i,t-1}) + \beta_{1j,t}[(\Delta REV_{i,t} - \Delta RECE_{i,t})/A_{i,t-1}] + \beta_{2j,t}[PPE_{i,t}/A_{i,t-1}] \quad (3)$$

The absolute value of discretionary accruals for firm i in year t is computed as follows:

$$|DA_{i,t}| = |TA_{i,t} - NDA_{i,t}| \quad (4)$$

Empirical Specification

We use the following regression to test the association between corporate reputation and earnings quality.

$$|DA_{i,t}| = \beta_0 + \beta_1 * \text{Reputation} + \beta_2 * TA_{i,t} + \beta_3 * LEV_{i,t} + \beta_4 * MTB_{i,t} + \varepsilon \quad (5)$$

Where

$|DA_{i,t}|$ = the absolute value of discretionary accruals for firm i in year t ;

Reputation = “1” if the firm is on the American’s Most Admired Company list in 2006, otherwise, “0”.

$TA_{i,t}$ = firm i ’s total assets in year t ;

$LEV_{i,t}$ = total debt (Compustat Item #9+#34) /total assets (Compustat Item #6) of firm i in year t ;

$MTB_{i,t}$ = market-to-book ratio (Compustat Item #199x#25 divided by #60) of firm i in year t .

Three variables are included to control for firm size, leverage, and the market-to-book ratio.

Sample Selection and Descriptive Statistics

We use the list of America’s Most Admired Companies as a proxy for good corporate reputation consistent with prior work (e.g. McLaughlin et al., 1996; Robert and Dowling, 2002; Damodaran, 2003; Anderson and Smith, 2006; Wang and Smith, 2008). Since the list of America’s Most Admired Companies of 2006 was published in March 2006, we use the prior year’s (2005) financial data in our analysis. For each sample firm, a matching firm with the closest firm size (measured by total assets) within the same industry is selected.

We obtain the company list of America’s Most Admired Companies of 2006 from Fortune Magazine¹. The full list consists of 303 firms. We remove 36 financial institutions (SIC 6000 – 6999) in this study because it is difficult to define accruals and unexpected accruals for these companies. Another 44 firms are excluded due to missing Compustat data. Thus, our final sample consists of 223 firms. Panel A of Table 1 reconciles the sample selection process. Panel B in Table 1 presents the sample’s distribution across broad industry categories. For instance, 105 out of the 223 firms are from the manufacturing industries, while only one firm is from the agriculture, forestry and fisheries industries.

Table 1
Sample Selection and Industry Distribution

Panel A: Sample Selection	
	<u>Sample Size</u>
2006 Most-Admired Firm List	303
Finance Firms ²	-36
Firms missing data on Compustat	-44
Final Sample	<u>223</u>
Panel B: Industry Distribution	
<u>Industry</u>	<u>Number of Firms</u>
Agriculture, forestry and fisheries (SIC 01-09)	1
Mineral Industries (SIC 10-14)	11
Construction Industries (SIC 15-17)	3
Manufacturing Industries (SIC 20-39)	105
Transportation, communication and utilities (SIC 40-49)	40
Wholesale (SIC 50-51)	11
Retail (SIC 52-59)	25
Service (SIC 70-89)	<u>27</u>
Total	<u>223</u>

Panel A of Table 2 presents the descriptive statistics of selected variables from sample firms and matched firms. These variables include the absolute value of discretionary accruals ($|DA|$), total assets (TA), total debt (TD), leverage (LEV), the market-to-book ratio (MTB), return on assets (ROA), and return on equity (ROE). For sample firms, the mean and median values of $|DA|$ are 0.0129 and 0.009, respectively. For matched firms, the mean and median values of $|DA|$ are 0.0166 and 0.0108, respectively. It appears that sample firms on average have lower discretionary accruals, relative to matched firms.

Sample firm control variables of have higher mean and median values than those of matched firms except for the leverage ratio (LEV). For instance, the mean value of total assets of the sample firms is \$24,390.32, while the mean value of total assets of the matched firms is \$18,390.09. The above findings are not surprising³, since firms selected on the America's Most Admired Company list are usually larger firms.

Panel B of Table 2 reports mean paired differences between sample firms and matched firms. We use both the t-test and the Wilcoxon test to measure the significance of differences. Both tests indicate that the paired differences in the absolute value of discretionary accruals, total assets, the leverage ratio (LEV) and return on assets (ROA) are significant.

Table 2
Descriptive Statistics

Panel A: Descriptive Statistics						
	Sample Firms (n=223)			Matched Firms (n=223)		
	Mean	Std. Dev.	Median	Mean	Std. Dev.	Median
$ DA_{i,t} $	0.0129	0.0146	0.0090	0.0166	0.0229	0.0108
TA	24,390.32	39,469.00	10,358.00	18,390.09	30,183.33	7,983.10
TD	5,412.33	10,882.00	1,748.00	4,567.27	8,795.00	1,696.20
LEV	0.2097	0.1406	0.1944	0.2463	0.1455	0.2378
MTB	4.0300	5.1184	2.9700	3.5389	6.8609	2.2800
ROA	7.5583	5.5232	6.8800	5.6530	5.0054	4.9500
ROE	19.1000	37.9076	16.1700	16.1335	42.0055	13.5200

Panel B: Paired Difference in Mean		
	T-test (p-value)	Wilcoxon Test (p-value)
$ DA_{i,t} $	0.043	0.0405
TA	0.072	0.0322
TD	0.3676	0.636
LEV	0.007	0.0077
MTB	0.3921	0.0006
ROA	0.0002	<0.0001
ROE	0.4341	0.0014

Variable Definitions:

$|DA|$ = the absolute value of discretionary accrual in 2005;

TA = total assets in 2005;

TD = total debt in 2005;

LEV = total debt/total asset;

MTB = market-to-book ratio;

ROA = return on assets;

ROE = return on equity.

Table 3 reports the Pearson correlation matrix for the variables in Table 2. Some variables are correlated at a significant level. The correlation coefficient between the absolute value of discretionary accruals ($|DA|$) and reputation is -0.0959, with a p-value of 0.043. This implies a significant and negative relationship between the absolute value of discretionary accruals and total assets. In addition, the correlation coefficient between total assets (TA) and reputation is 0.0853, with a p-value of 0.072. This suggests that firms with good reputations are larger firms.

Table 3
Pearson Correlations among the Variables

	$ DA_{i,t} $	Reputation	TA	LEV	MTB	ROA
Reputation	-0.0959					
(p-value, two-tailed)	0.0430					
TA	0.0039	0.0853				
(p-value, two-tailed)	0.9350	0.0720				
LEV	-0.0135	-0.1275	0.0221			
(p-value, two-tailed)	0.7768	0.0070	0.6411			
MTB	-0.0023	0.0406	-0.0795	0.0952		
(p-value, two-tailed)	0.9614	0.3921	0.0934	0.0446		
ROA	-0.0701	0.1783	-0.0663	-0.3547	0.2024	
(p-value, two-tailed)	0.1393	0.0002	0.1623	<0.0001	<0.0001	
ROE	0.0103	0.0371	-0.0169	0.0667	0.7139	0.4516
(p-value, two-tailed)	0.8276	0.4341	0.7227	0.1594	<0.0001	<0.0001

Variable Definitions:

$|DA|$ = the absolute value of discretionary accrual in 2005;

Reputation = “1” of the firm is on the America’s Most Admired Companies of 2006, otherwise, “0”;

TA = total assets in 2005;

LEV = total debt/total asset;

MTB = market-to-book ratio;

ROA = return on assets;

ROE = return on equity.

Table 4
Regression Analysis

Model:

$$|DA_{i,t}| = \beta_0 + \beta_1 * \text{Reputation} + \beta_2 * \text{TA}_{i,t} + \beta_3 * \text{LEV}_{i,t} + \beta_4 * \text{MTB}_{i,t} + \varepsilon \quad (5)$$

Results: (n = 446)

Variables	Parameter Estimates	Std. Error	t-stat	Pr> t 	Variance Inflation
Intercept	0.01725	0.00212	8.14	<0.0001	
Reputation	-0.00388	0.00185	-2.10	0.0366*	1.02846
TA	7.38E-09	2.61E-08	0.28	0.7777	1.01618
LEV	-0.00363	0.00643	-0.56	0.5728	1.02889
MTB	0.000017	0.00015	0.11	0.9094	1.01979

Adjusted $R^2 = 0.0011^4$

* significant at 0.05, two-tailed test.

Variable Definitions:

$|DA|$ = the absolute value of discretionary accrual in 2005;

Reputation = 1 of the firm is on the America’s Most Admired Companies of 2006, otherwise, “0”;

TA = total assets in 2005;

LEV = total debt/total asset;

MTB = market-to-book ratio;

4. RESULTS

To test our hypothesis that firms with high reputation have high earnings quality, we run the regression model (Equation 5). If the hypothesis is true, we expect a significant and negative relation between the absolute value of discretionary accruals and corporate reputation. Table 4 reports the results of our regression analysis. As shown in Table 4, β_1 is -0.00388 and significant at $p = 0.0366$. Thus, our hypothesis is supported. We included three control variables in our regression analysis. Results indicate the absolute value of discretionary accruals is positively

related to firm size and market-to-book ratio, and negatively related to leverage ratio. However, the above relationships are not statistically significant.

We also check for multicollinearity in the regression model, by calculating the variance inflation factor (VIF) for each variable. The last column of Table 4 reports the VIF values. Each variable's VIF value is relatively small (i.e., less than 10) indicating that there is no multicollinearity among variables in our regression model.

5. CONCLUSION

This study examines the association between corporate reputation and the quality of the firm's earnings. We posit that firms with superior reputation also should have superior earnings quality. Using the modified Jones (1991) model and regression analysis, we find evidence to support our hypothesis. Our results should be of interests to managers who engage in behavior leading to or maintaining a positive corporate reputation and to financial analysts who conduct research on determining the earnings quality of a firm. Moreover, our study can increase individual investors' confidence in assessing the earnings quality of firms with superior reputations.

AUTHOR INFORMATION

Christopher Luchs is an Assistant Professor of Accounting at Ball State University. He earned his Ph.D. in Business Administration from Kent State University. He has published articles in *International Journal of Business and Economics Perspective*, *Review of Business Research*, and the *Journal of Accounting and Finance Research*.

Martin T. Stuebs, Jr. is an Assistant Professor of Accounting at Baylor University in Waco, Texas. He received his doctoral degree from the University of Arkansas. He has published articles in several journals including the *CPA Journal*, the *Journal of Accounting and Public Policy*, and *Issues in Accounting Education*.

Li Sun is an Assistant Professor of Accounting at Ball State University. He earned his Ph.D. in Business Administration from Oklahoma State University. He has published an article in *Journal of Forensic Accounting*.

REFERENCES

1. Anderson, J., & Smith, G. N. (2006). A great company can be a great investment. *Financial Analysts Journal*, 62(4), 86-93.
2. Antunovich, P., & Laster, D. S. (1999). Do investors mistake a good company for a good investment? Working paper, Pomona College.
3. Basu, S. (1997). The conservatism principle and asymmetric timeliness of earnings. *Journal of Accounting and Economics*, 24, 3-37.
4. Chun, R. (2005). Corporate reputation: meaning and measurement. *International Journal of Management Review*, 7 (2), 91-109.
5. Collins, D., Maydew, E., & Weiss, I. (1997). Changes in the value-relevance of earnings and book values over the past forty years. *Journal of Accounting and Economics*, 24, 39-67.
6. Damodaran, A. (2003). In search of excellence! Are good companies good investments? Working paper, New York University.
7. Dierickx, I., & Cool, K. (1989). Asset stock accumulation and sustainable competitive advantage. *Management Science*, 35, 1504-1511.
8. Dechow, P., & Dichev, I. (2002). The quality of accruals and earnings: the role of accrual estimation errors. *The Accounting Review*, 77, 35-59.
9. Dechow, P., & Schrand, C. (2004). Earnings Quality. Research Foundation of CFA Institute. Charlottesville, VA.
10. Dowling, G. (2001). Creating corporate reputations. Oxford, MA: *Oxford University Press*.
11. Fombrun, C. (1996). *Reputation: realizing value from the corporate image*. Boston, MA: Harvard Business School Press.
12. Fombrun, C., & Shanley, M. (1990). What's in a name? Reputation building and corporate strategy. *Academy of Management Journal*, 33, 233-258.

13. Francis, J., Huang, A., Rajgopal, S., & Zhang, A. (2008). CEO reputation and earnings quality. *Contemporary Accounting Research*, forthcoming.
14. Francis, J., & Schipper, K. (1999). Have financial statements lost their relevance? *Journal of Accounting Research*, 37, 319-352.
15. Herremans, I. M., Akathaporn, P., & McInnes, M. (1993). An investigation of corporate social responsibility reputation and economic performance. *Accounting Organizations and Society*, 18, 587-604.
16. Jones, J.J. (1991). Earnings management during import relief investigation. *Journal of Accounting Research*, 29, 193-228.
17. Landon, S., & Smith, C.E. (1997). The use of quality and reputation indicators by consumers: the case of Bordeaux wine. *Journal of Consumer Policy*, 20, 289-323.
18. McLaughlin, R. M., Ruback, R., & Tehranian, H. (1996). Does corporate quality matter? Working paper, Suffolk University.
19. Roberts, P., & Dowling, G. (2002). Corporate Reputation and Sustained Superior Financial Performance. *Strategic Management Journal*, 23(12), 1077-1093.
20. Sloan, R. (1996). Do stock prices fully reflect information in accruals and cash flows about future earnings? *The Accounting Review*, 71(3), 289-316.
21. Tan, H. (2007). Does the reputation matter? Corporate reputation and earnings quality. Working paper, China Southwestern University of Finance and Economics.
22. Wang, K., & L. Smith. (2008). Does corporate reputation translate into higher market value? Working paper, Texas Southern University.
23. Wright, C., Shaw, J., & Guan, L. (2006). Corporate governance and investor protection: earnings management in the U.K. and U.S. *Journal of International Accounting Research*, 5(1), 25-40.

Notes:

1. <http://money.cnn.com/magazines/fortune/mostadmired/2006/index.html>
2. Financial institutions are excluded in this study, because it is difficult to define accruals and unexpected accruals for these companies.
3. Wang and Smith (2008) use the America's Most Admired Companies of 2005 list and match their sample firms based on total assets. Their results indicate that the total assets of sample firms are significantly larger than those of matched firms. They report the mean value of total assets for sample firms is \$37,656.23, while the mean value of total assets for matched firms is \$26,835.10.
4. Other studies that use modified Jones (1991) model also report relatively low adjusted R^2 's in their regression analysis. For instance, Wright et al. (2006) report an adjusted R^2 of 0.0492.